REMARKS

Claims 1-58 are pending in the application.

Claims 1-58 stand rejected.

Claims 1, 9, 17, 24, 32, 40 and 48 have been amended.

Rejection of Claims under 35 U.S.C. § 102

Claims 1-58 stand rejected under 35 U.S.C. § 102(e), as being anticipated by Uga, et al., U.S. Patent No. 6,718,326 B2 (Uga).

While not conceding that the cited reference qualifies as prior art, but instead to expedite prosecution, Applicant has chosen to respectfully disagree and traverse the rejection as follows. Applicant reserves the right, for example, in a continuing application, to establish that the cited reference, or other references cited now or hereafter, do not qualify as prior art as to an invention embodiment previously, currently, or subsequently claimed.

At the outset, Applicant respectfully notes a fundamental difference between the invention, as claimed in independent claims 1, 9, 17, 24, 32, 40 and 48, is generally directed to methods, systems network elements and so on, that employ two memories (e.g., a content-addressable memory and a multi-feature classification memory) that each store respective information regarding the processing of a packet (an index into the multi-feature classification memory, and one or more multi-feature packet processing rules, respectively). Accessing the first memory (e.g., the content-addressable memory) provides an index that can then be used to access the second memory (e.g., the multi-feature classification memory).

By contrast, Uga provides no such mechanism. In Uga's system, once a match is found in Uga's content addressable memory, actions thus identified are stored in Uga's search result storage device. Applicant respectfully submits that Uga's search result storage device does not, in fact, anticipate the claimed multi-feature classification memory for several reasons. For example, the claimed content-addressable memory does not provide any of Uga's information to the claimed multi-feature classification memory for storage therein. Moreover, Applicant respectfully submits that the claimed multi-feature classification memory does not receive anything comparable to Uga's actions and comparison information from the claimed content-addressable memory. These distinctions are highlighted by the following passages, and, Applicant respectfully submits, are sufficient to distinguish the claimed invention from Uga, and so lead to the conclusion that the claimed invention is allowable over Uga.

Claim 1 recites:

1.   A method of processing a packet comprising:
populating a plurality of multi-feature packet processing rules in a multi-feature
        classification memory; and
populating an associated content-addressable memory with a plurality of indices, wherein
        said indices are indices of said plurality of multi-feature packet processing rules in
                said multi-feature classification memory, and
        said content-addressable memory and said multi-feature classification memory are
                associated with one another by virtue of being coupled to one another.

Claims 9, 17, 24, 32, 40 and 48 now recite substantially similar limitations, having been amended to refine the limitations that capture the distinctions discussed herein. As will be

appreciated, each of the independent claims clearly recites the fact that an index from the content-addressable memory is used to access packet processing rules for a plurality of features stored in a multi-feature classification memory via the claimed coupling between the two. As noted earlier, this is in marked contrast to the mechanisms described in Uga.

It is noted in the Office Action that the following section of Uga, which is directed to:

"A packet classification search device and method are implemented which are capable of searching rules of packet classification having very long search bit width at high speed while using a CAM which has a limited bit width. The fields of rules of packet classification are grouped into groups, and the grouped fields of each rule are stored along with search related information (except for the initial group) and number of searches information in a CAM. The next number of searches information (if further groups exist which must be searched), comparison related information, and actions related to packets (if further groups exist which must be searched, directing searching again, while if no further groups exist which must be searched, actions for packet classification) are stored in a search result storage device. By doing this it is made possible to search with the bit width of the group unit." (Uga, Abstract)

which is said to demonstrate that "… the search result storage device stores actions corresponding to said combinations of grouped fields, the number of searches [sic] information

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and search related information inputted to said content addressable memory." (Office Action, p. 5, section 4.a) This section of Uga recites:

> "...
>
> a search result storage device which stores, in correspondence to said combinations which are stored in said content addressable memory, actions which are to be performed when combinations of grouped fields, number of searches information and search related information that have been inputted to said content addressable memory are found in said content addressable memory, and comparison related information which show the rules to search when next searching in said content addressable memory
>
> ..." (Uga, claim 1; Emphasis added)

Applicant fails to discern the manner in which the foregoing claim language anticipates the instant claims. As an initial point, Applicant fails to discern in the cited passages (or, in fact, anywhere else) in Uga where there is taught the use of an index between two memories coupled to one another. Moreover, Applicant further fails to discern in the cited passages (or, in fact, anywhere else) in Uga where there is taught the use of "indices," as clearly recited in Applicant's claims.

Moreover, Applicant is at a loss to appreciate how the foregoing section of Uga teaches that "... the search result storage device stores actions corresponding to said combinations of grouped fields, the number of searches [sic] information and search related information inputted
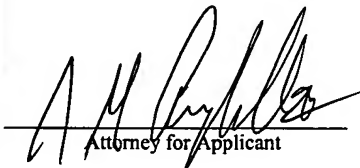
to said content addressable memory." (Office Action, p. 5, section 4.a) First, the claimed

"plurality of multi-feature packet processing rules" correspond to an index. Second, Applicant

are at a loss to appreciate how the storage of the "... actions corresponding to said combinations

of grouped fields ..." anticipates the claimed invention's use of an index, regardless of how that

index is created (and Applicant does not concede that any parallel can successfully be drawn in

this regard.

Applicant submits, therefore, that independent claims 1, 9, 17, 24, 32, 40 and 48 are

allowable over Uga and Applicant respectfully urges the Examiner to withdraw the §102

rejection of claims 1-55, as well as with regard to claims 56-58, due to their dependency on their

respective independent claims. Applicant further submits that dependent claims 2-8, 10-16, 18-

23, 25-31, 33-39, 41-47 and 49-58 are allowable as depending upon allowable base claims in

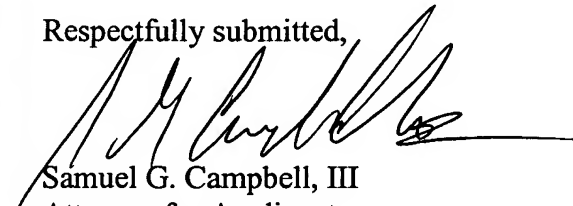addition to being allowable for various other reasons.

CONCLUSION

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5084.

Respectfully submitted,

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